

Safety Data Sheet

1. IDENTIFICATION

Product Identifier

Product Name Aluminum Chloride Basic, Solution

Other means of identification

SDS # 650

UN/ID No UN3264
Synonyms Aluminum chloride hydroxide

Recommended use of the chemical and restrictions on use

Recommended Use Water treatment chemical.

Manufacturer

USALCO, LLC
 2601 Cannery Ave
 Baltimore, MD 21226

Emergency Telephone Number

Company Phone Number Business 1-410-354-0100 (7:00am-5:00pm)

Fax 1-410-354-1021

Emergency Telephone (24 hr) 1-800-282-5322

2. HAZARDS IDENTIFICATION

Appearance Colorless to yellow liquid
 Normally clear but may be hazy

Physical State Liquid

Odor Negligible to hydrogen chloride

Classification

Serious eye damage/eye irritation	Category 2
Corrosive to Metals	Category 1

Signal Word

Warning

Hazard Statements

Causes serious eye irritation
 May be corrosive to metals


Precautionary Statements – Prevention

Wear eye/face protection. Wash hands and any exposed skin thoroughly after handling.
 Wear protective gloves. Keep only in original container.

Precautionary Statements - Response

If on skin: Wash with plenty of water. If skin irritation occurs: Get medical attention. Take off contaminated clothing and wash it before reuse. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical attention.

Precautionary Statements – Storage

Store in corrosive resistant plastic or FRP container or container with corrosive resistant inner liner.

Precautionary Statements - Disposal

Dispose in accordance with all applicable regulations. Subject to disposal regulations: U.S. EPA 40 CFR 262. Hazardous Waste Number(s): May be D002 under §261.22(a)(2) due to the rate of corrosion of metal.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No	Weight-%
Water	7732-18-5	70-85
Aluminum Chloride, Basic	1327-41-9	30-34

4. FIRST-AID MEASURES

First Aid Measures

General Advice	After first aid, get appropriate in-plant, paramedic, or community medical support.
Eye Contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Seek immediate medical attention/advice.
Skin Contact	Wash off immediately with plenty of water. Take off contaminated clothing. Wash contaminated clothing before reuse. Get medical attention if necessary.
Inhalation	Remove to fresh air. Oxygen or artificial respiration if needed. Get medical attention if symptoms occur.
Ingestion	Give large amounts of water to drink. If vomiting should occur spontaneously, keep airway clear. Never give anything by mouth to an unconscious person.

Most important symptoms and effects

Symptoms	May cause eye burns and permanent eye damage. May cause blurred vision, redness, watering and burning of the eyes. May include redness, drying and cracking of skin. May cause irritation to the mucous membranes and upper respiratory tract.
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Indication of any immediate medical attention and special treatment needed

Notes to Physician	Treat symptomatically.
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5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable Extinguishing Media Not determined.

Specific Hazards Arising from the Chemical

Combustion products may be toxic.

Hazardous Combustion Products Hydrogen chloride. Chlorine gas.

Protective equipment and precautions for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. Use water spray to keep fire-exposed containers cool. Do not release runoff from fire control methods to sewers or waterways.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal Precautions	Use personal protective equipment as required.
Environmental Precautions	Do not release into sewers or waterways. See Section 12 for additional Ecological Information.

Methods and material for containment and cleaning up

Methods for Containment	Prevent further leakage or spillage if safe to do so.
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Methods for Clean-Up

Methods for Clean-Up Small Spills: Wash down with large volumes of water if the runoff can be collected and managed.

Large Spills: Dike ahead of liquid to control the spread of the spill. Pump liquid into a suitable tank for disposal. Wash the area down with water to remove residue. Spills can be neutralized and absorbed with soda ash, lime or other basic chemicals. Exercise caution when neutralizing spills, as by-products gasses, such as carbon dioxide, may be generated and could potentially generate a hazardous atmosphere. Adequate ventilation is required if the potential for the release of gases exists.

7. HANDLING AND STORAGE

Precautions for safe handling
Advice on Safe Handling

Wash thoroughly after handling. Use personal protection recommended in Section 8. Ensure that all containers are labeled in accordance with OSHA regulations. Avoid contact with metal, as product will slowly corrode iron, brass, copper, aluminum and mild steel. Avoid contact with skin and eyes.

Conditions for safe storage, including any incompatibilities
Storage Conditions

Keep containers tightly closed in a dry, cool and well-ventilated place. Store away from incompatible materials. Keep storage temperature between 0°C/32°F and 30°C/86°F. Keep only in original container.

Packaging Materials

Store in rubber-lined, plastic or FRP vessels.

Incompatible Materials

Strong bases. Alcohols. Organic materials. Ammonia. Will react with most metals (aluminum, iron, zinc, tin, etc.) to release flammable hydrogen gas.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

No exposure limits noted for product.

Exposure Limits for aluminum metal

NIOSH REL - TWA 10 mg/m³ (total) TWA 5 mg/m³ (resp)

OSHA PEL - TWA 15 mg/m³ (total) TWA 5 mg/m³ (resp)

Appropriate engineering controls
Engineering Controls

Local exhaust ventilation recommended. Eyewash stations. Showers.

Individual protection measures, such as personal protective equipment
Eye/Face Protection

Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133. Contact lenses are not eye protective devices. Appropriate eye protection must be worn instead of, or in conjunction with, contact lenses.

Skin and Body Protection

Wear appropriate clothing to prevent repeated or prolonged skin contact.

Respiratory Protection

Seek professional advice prior to respirator selection and use. Select respirator based on its suitability to provide adequate worker protection for given working conditions, level of airborne contamination, and presence of sufficient oxygen. **WARNING!** Air-purifying respirators do not protect workers in oxygen-deficient atmospheres.

General Hygiene Considerations

Contaminated Equipment: Separate contaminated work clothes from street clothes. Launder before reuse. Remove this material from your shoes and clean personal protective equipment. Never eat, drink, or smoke in work areas. Practice good personal hygiene after using this material, especially before eating, drinking, smoking, using the toilet, or applying cosmetics.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance	Colorless to yellow liquid. Normally clear but may be hazy.
Odor	Negligible to hydrogen chloride
Odor threshold	Not determined
pH	<1.0
Relative density; (specific gravity)	±1.3 (1=Water) @ 4°C
Melting point/freezing point	< -32° C / <0° F
Initial boiling point and boiling range	> 110° C / >230° F
Decomposition temperature	±120° C / 250° F
Viscosity	10 centipoise
Auto-ignition temperature	Not flammable
Evaporation rate;	Similar to water
Flammability (solid, gas)	Not flammable
Flash point	Will not burn
Upper/lower flammability or explosive limits	Will not burn
Partition coefficient: n-octanol/water	Not relevant
Solubility	Soluble in water
Vapor density	Similar to water
Vapor pressure	Similar to water

10. STABILITY AND REACTIVITY

Reactivity

Not reactive under normal conditions.

Chemical Stability

Stable under recommended storage conditions.

Possibility of Hazardous Reactions

Not compatible with strong bases (such as sodium hydroxide and potassium hydroxide); alcohols, organic materials (such as wood, paper, leather) and ammonia. Mixing may generate heat, spattering or boiling and toxic vapors.

Hazardous Polymerization Hazardous polymerization does not occur.

Conditions to Avoid

Contact with incompatible materials.

Incompatible Materials

Strong bases. Alcohols. Organic materials. Ammonia. Will react with most metals (aluminum, iron, zinc, tin, etc.) to release flammable hydrogen gas.

Hazardous Decomposition Products

Hydrogen chloride. Chlorine gas.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Eye Contact	Causes serious eye damage.
Skin Contact	Avoid contact with skin.
Inhalation	Avoid breathing vapors or mists.
Ingestion	Do not taste or swallow.

Component Information

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Aluminum chloride, basic 1327-41-9	> 2000 mg/kg (Rat)	-	-

Information on physical, chemical and toxicological effects

Symptoms Please see section 4 of this SDS for symptoms.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Carcinogenicity This product does not contain any carcinogens or potential carcinogens as listed by OSHA, IARC or NTP.

12. ECOLOGICAL INFORMATION
Ecotoxicity

An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

Persistence/Degradability

Not determined

Bioaccumulation

Not determined

Mobility

Not determined

Other Adverse Effects

Not determined

13. DISPOSAL CONSIDERATIONS
Waste Treatment Methods

Disposal of Wastes Disposal should be in accordance with applicable regional, national and local laws and regulations.

Contaminated Packaging Disposal should be in accordance with applicable regional, national and local laws and regulations.

14. TRANSPORT INFORMATION

Note Please see current shipping paper for most up to date shipping information, including exemptions and special circumstances.

DOT

UN/ID No	UN3264
Proper Shipping Name	Corrosive liquid, acidic, inorganic, n.o.s. (Aluminum chloride, basic)
Hazard Class	8
Packing Group	III

IATA

UN/ID No	UN3264
Proper Shipping Name	Corrosive liquid, acidic, inorganic, n.o.s. (Aluminum chloride, basic)
Hazard Class	8
Packing Group	III

IMDG

UN/ID No	UN3264
Proper Shipping Name	Corrosive liquid, acidic, inorganic, n.o.s. (Aluminum chloride, basic)
Hazard Class	8
Packing Group	III

15. REGULATORY INFORMATION
International Inventories

Not determined

US Federal Regulations
CERCLA

Does not apply

SARA 311/312 Hazard Categories

Acute Health Hazard	Yes
Chronic Health Hazard	No
Fire Hazard	No
Sudden Release of Pressure Hazard	No
Reactive Hazard	No

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

CWA (Clean Water Act)

Does not apply

US State Regulations
U.S. State Right-to-Know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania
Aluminum chloride, basic 1327-41-9			X

16. OTHER INFORMATION

NFPA	Health Hazards 2	Flammability 0	Instability 0	Special Hazards Not determined
HMIS	Health Hazards 2	Flammability 0	Instability 0	Personal Protection Not determined

Issue Date 4-30-2013

Revision Date: 4-28-2015, 2-27-2020, New format, 10-29-2020, Sec. 6 revised.

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet